

We claim:

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1. A scanner for detecting and decoding primary and supplemental bar code labels, comprising:

a laser for generating light;

a video receiver assembly for detecting light patterns produced by a reflection of the light generated by the laser from one or more bar code labels passing within a field of view of the video receiver assembly and producing data based on the light patterns; and

a controller for analyzing the data produced by the video receiver assembly to detect a plurality primary bar code label, the controller being operative upon detection of a primary bar code label to search a database for the bar code represented by the primary bar code label and retrieve a value associated with the bar code, the controller being operative to conduct a search for a supplemental bar code label based on the value associated with the retrieved value.

2. The scanner of claim 1 wherein the controller does not conduct a search for a supplemental label if the bar code represented by the primary bar code label is not found in the database.

3. The scanner of claim 1 wherein the controller conducts a default search if the bar code represented by the primary bar code label is not found in the database.

4. The scanner of claim 1 where the controller is operative to place the scanner in a supplemental label mode ^(second component or a second code 20) for a following scan only and upon detecting a primary label ^(1st component or product code 19 in the copy) to search ^(rule 5, lines 39-1) for a supplemental label until a supplemental label is detected or an operator intervenes to abort the search.

5. The scanner of claim 4 wherein the database includes a plurality of bar codes which may be represented by primary bar code labels and wherein the value associated with each

of the bar codes reflects a probability that a primary label bearing the bar code will be accompanied by a supplemental label.

6. The scanner of claim 5 wherein the value associated with each of the bar codes represents a degree of difficulty in detecting a supplemental label likely to accompany a primary label bearing the bar code.

7. The scanner of claim 6 wherein processing the UPC label data includes transferring the primary label data to a terminal connected to the scanner, and processing the supplemental label data includes transferring the supplemental label data to the terminal.

8. The scanner of claim 7 wherein the scanner is further operative to provide operator feedback upon detection of a primary label and to provide further operator feedback upon detection of a supplemental label.

9. The scanner of claim 8 wherein the controller is operative to update the database after a search for a supplemental label in order to refine the values associated with the bar codes to reflect the information provided by the results of the search.

10. The scanner of claim 9 wherein the database is received from a central computer serving a plurality of scanners and wherein each of the scanners provides information to update the database in the central computer.

11. A method of bar code detection and decoding, comprising the steps of:
monitoring light entering a video receiver circuit to determine if a primary label has been detected;
upon detecting a primary label, examining a database for bar code information appearing on the primary label;
retrieving a value associated with the bar code information; and

conducting a search for a supplemental label in accordance with the value associated with the bar code information.

12. The method of claim 11 wherein the value associated with the bar code information reflects a probability that the primary label will be accompanied by a supplemental label.

13. The method of claim 12 wherein the value associated with the bar code information reflects a difficulty of detecting a supplemental label likely to accompany the primary label.

14. The method of claim 13, further comprising the step of updating the database based on the results of the search.

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